temperatures may be used where excessive temperatures will exist during operation or after engine shutdown.

[Doc. No. 4080, 29 FR 17955, Dec. 18, 1964, as amended by Amdt. 23–43, 58 FR 18973, Apr. 9, 1993]

§ 23.994 Fuel system components.

Fuel system components in an engine nacelle or in the fuselage must be protected from damage which could result in spillage of enough fuel to constitute a fire hazard as a result of a wheels-up landing on a paved runway.

[Amdt. 23–29, 49 FR 6847, Feb. 23, 1984]

§ 23.995 Fuel valves and controls.

(a) There must be a means to allow appropriate flight crew members to rapidly shut off, in flight, the fuel to each engine individually.

(b) No shutoff valve may be on the engine side of any firewall. In addition, there must be means to—

(1) Guard against inadvertent operation of each shutoff valve; and

(2) Allow appropriate flight crew members to reopen each valve rapidly after it has been closed.

(c) Each valve and fuel system control must be supported so that loads resulting from its operation or from accelerated flight conditions are not transmitted to the lines connected to the valve.

(d) Each valve and fuel system control must be installed so that gravity and vibration will not affect the selected position.

(e) Each fuel valve handle and its connections to the valve mechanism must have design features that minimize the possibility of incorrect installation.

(f) Each check valve must be constructed, or otherwise incorporate provisions, to preclude incorrect assembly or connection of the valve.

(g) Fuel tank selector valves must—

(1) Require a separate and distinct action to place the selector in the ''OFF'' position; and

(2) Have the tank selector positions located in such a manner that it is impossible for the selector to pass through the ''OFF'' position when changing from one tank to another.

[Doc. No. 4080, 29 FR 17955, Dec. 18, 1964, as amended by Amdt. 23–14, 38 FR 31823, Nov. 19, 1973; Amdt. 23–17, 41 FR 55465, Dec. 20, 1976; Amdt. 23–18, 42 FR 15041, Mar. 17, 1977; Amdt. 23–29, 49 FR 6847, Feb. 23, 1984]

§ 23.997 Fuel strainer or filter.

There must be a fuel strainer or filter between the fuel tank outlet and the inlet of either the fuel metering device or an engine driven positive displacement pump, whichever is nearer the fuel tank outlet. This fuel strainer or filter must—

(a) Be accessible for draining and cleaning and must incorporate a screen or element which is easily removable;

(b) Have a sediment trap and drain except that it need not have a drain if the strainer or filter is easily removable for drain purposes;

(c) Be mounted so that its weight is not supported by the connecting lines or by the inlet or outlet connections of the strainer or filter itself, unless adequate strength margins under all loading conditions are provided in the lines and connections; and

(d) Have the capacity (with respect to operating limitations established for the engine) to ensure that engine fuel system functioning is not impaired, with the fuel contaminated to a degree (with respect to particle size and density) that is greater than that established for the engine during its type certification.

(e) In addition, for commuter category airplanes, unless means are provided in the fuel system to prevent the accumulation of ice on the filter, a means must be provided to automatically maintain the fuel flow if ice clogging of the filter occurs.

[Amdt. 23–15, 39 FR 35459, Oct. 1, 1974, as amended by Amdt. 23–29, 49 FR 6847, Feb. 23, 1984; Amdt. 23–34, 52 FR 1832, Jan. 15, 1987; Amdt. 23–43, 58 FR 18973, Apr. 9, 1993]

§ 23.999 Fuel system drains.

(a) There must be at least one drain to allow safe drainage of the entire fuel system with the airplane in its normal ground attitude.

(b) Each drain required by paragraph (a) of this section and § 23.971 must—